Taking the “bite” out of science

Multi-state teachers event stops in Logansport to help teachers connect their students with real-world scientists.

by Sarah Einselen
Pharos-Tribune

LOGANSPORT — In a small hotel meeting room Tuesday night, 15 teachers from nine local and regional schools munched and chatted among themselves while they held strips of cut-up coffee filters with one end barely dipped into water.

A spot of color, inked with a cheap child's felt-tip marker, stood out near the end of each strip. The teachers watched an experiment they've done many times before — water seeping up the coffee filter strip, against gravity, and separating the pigments in the ink as it went.

The experiment was an illustration of chromatography, one of many chemical processes used either to manufacture ethanol or facilitate its manufacture at the Clymers ethanol plant owned by The Andersons just south of Logansport. The plant's quality assurance and laboratory manager, Casey N. McMurtrie, was invited by program sponsor The Center for Excellence in Education, or CEE, to help teachers become more aware of how scientific principles they teach in the classroom work out in real-world careers.

CEE sponsored a Bite of Science dinner and presentation time Tuesday evening at the Holiday Inn Express-Logansport on East Market Street. It's one of about 10 dinners the organization is doing this fall and winter in Indiana, Illinois and Virginia to acquaint teachers with local scientists.

"They are to connect the research that scientists and engineers in the community are doing with what's being taught in the classrooms," said Natasha Schuh-Nuhfer, director for CEE's teacher enrichment program. "When the teachers are asked, 'why do I need to know this?' the teachers can provide exciting stories — real life examples of what's being taught in the classroom."

McMurtrie showed several diagrams of the steps involved in turning raw corn into ethanol — not an easy task, she said, since yeast by itself doesn't like to eat corn.

The laboratory heats ground corn with water in a process called hydrolysis to prod the yeast into eating the corn. Lab techs add another chemical to keep the ground corn and water from turning into gravy, too. But if too much of that chemical is added, the lab runs the risk of turning the substance brown and reducing the amount of ethanol that can be produced from it.

That turning brown is the same process that turns caramel brown, she said. The same thing happens when she caramelizes sweetened condensed milk by submerging a can of it in boiling water for about three hours.

Other presenters from Manchester University and the Kokomo Chrysler plant, associate biology professor Jerry Sweeten and industrial engineering manager Heather Nacke, also spoke to the group of teachers from Logansport, Pioneer and Caston and as far away as North White High School in Monon in northern White County.

"Science didn't come easy to her, she said. In high school, she struggled through science but enjoyed it anyway.

"And for some reason I chose to go to college and study something that was hard for me," said Dahman. Now in her third year teaching, she suggested that her own experience with science would inspire students to pursue sciences even if it didn't come easy for them, either.

Dahman's freshman students also study careers in science during one portion of her class in order to introduce them to the variety of fields and jobs that studying science can lead to.

"A lot of times they know what their parents do," said Dahman, "but they don't know what's out there."
Local News

LEDF names new president
The Logansport-Cass County Economic Development Foundation has named a new president.

Sharing the road
With the fall season, drivers are urged to be cautious of motorcyclists and farm equipment on the road

France Park begins improvements
Kevin and Connie McCarthy spent Thursday afternoon taking their two grandchildren, Kilynn and Brayden Tabler, around France Park.

Pioneer switches Web filtering programs
Pioneer school board members approved spending $22,051 on a new Internet firewall and filter software, Lightspeed, that should increase speed and improve reliability for teachers and students surfing the Web.

Local Walmart sees 'significant' number of thefts
The Logansport Walmart had 60 cases of theft since Jan. 1, making it one of the area's highest retail locations for theft, according to police.

Cass County work release program nears capacity
With the work release program near capacity, inmates may be spending more time in jail as they wait for an opening in the program.

Opinions split on proposed new ball field
Opinion were divided last week on a proposed new youth baseball field at Fairview Park.

Factories laying off workers
Late last week, 17 people were laid off from MW Industries, known locally as Matthew-Warren, in the latest and largest of temporary layoffs the company has instituted to handle decreasing business from Europe's auto sector.

Logan's Landing brings home awards
Becki Harris and Pam Leeman attended the Indiana Main Street Conference in Kokomo last week to see Logan's Landing receive an award, but neither expected to win an award herself.

Hog hauler topples, closes U.S. 35 southbound
A semi-trailer full of hogs toppled over at the U.S. 35/24 Dunkirk exchange on Logansport's west side this morning, closing both southbound lanes of U.S.
Who do you think won last week's gubernatorial debate?

- Mike Pence
- John Gregg
- Rupert Boneham
- Not sure

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